

DEQ EMS Implementation 2003– PLAN ¹

The DEQ Implementation Plan is a compilation of ISO 14001 associated activities, exercises, and procedures that are designed to improved environmental performance by DEQ. The report is comprised of two chapters. Chapter One addresses those issues that relate directly to the implementation of ISO 14001 and activities necessary to conform the EMS to the requirements of DEQ's Environmental Enterprise (E²) program. Chapter Two addresses activities to be conducted in order to avoid occurrence of and to reduce environmental impact from DEQ operations that have been identified by the EMS Management Workgroup to have significant environmental aspects (interactions). The activities listed in Chapter Two are organized into four elements as defined by ISO 14001 that are necessary to achieve environmental performances as related to significant environmental aspects and impacts identified. They are 'Objectives & Targets', 'Training', 'Monitoring & Measurements', and 'Operational Control'.

Each year, the EMS Management Workgroup develops an inventory of DEQ's environmental aspects and impacts, and determines which aspects are potentially significant impacts. The implementation items in Chapter Two, as presently written, address two potentially significant environmental aspects related to DEQ internal operations, identified by the Management Team as of February 2003. They are water consumption and electric energy use based on Executive Orders issued by the Governor (Executive Order 33 - 2002 and Executive Order 54, 2003, respectively.) The Solid Waste Reduction Significant Aspect assessment report deadline for 2002 was not completed and subsequently, during the annual review, solid waste was determined not to be a significant aspect for the 2003 Implementation Plan. Efforts to reduce solid waste, and to improve "green" product and services procurement and contract related aspects, will continue on an office by office basis.

In Chapter Two, the two significant environmental aspects may or may not be addressed individually by each of the four elements ('Objectives & Targets', 'Training', 'Monitoring & Measurements', and 'Operational Control'). In some instances, the purposes and needs to reduce impact lend themselves to integrated approaches in setting Objectives & Targets, delivering training programs, and carrying out Monitoring and Measurement activities. Therefore, within each of the four elements, there may be several implementation activities, each addressing more than one significant environmental aspect. The integrated approach enhances the management of the projects and maximizes outcome with the most efficient use of resources. Where needed, the significant environmental aspect(s) are underlined in the activity description to instruct readers on the relationship to the implementation activity.

This Implementation Plan is considered a living document; hence, it is subject to scheduled, periodic amendments in the form of progress updates, activity additions, and activity removal upon completion. For additional information related to any of the implementation plan items, please contact Harry Gregori.

¹ The DEQ EMS is ISO 14001 conforming and is consistent with the requirements of the DEQ Environmental Enterprise (E²) Program.

Document Control Number: EMS 0100.03		Title: DEQ EMS 2003 Implementation Plan	
Origin Date: June 1, 2001	Revision Date & Number : 09/30/03, 04	Effective Date: Aug. 29, 2001	Printed Page: 1 of 15

CONTENT LISTING

CHAPTER ONE:

1. Individual EMS Implementation Work Items
2. Activities to Complete and Maintain VA DEQ E³ Program Requirements.

CHAPTER TWO:

A. Objectives & Targets

- A1. Water Conservation: Pursuant to Executive Order 33 (02) - To Reduce Water Consumption by 15%
- A2. Electrical and Thermal Energy Use: Pursuant to Executive Order 54(03) - To improve Energy Conservation and Efficiency Within DEQ Facilities (Both Electrical and Thermal Energy)

B. Training

- B1. Mandatory EMS Related Training to be Implemented Agency-Wide or to be Offered to a Large Segment of DEQ Staff and Would Require Certification of Completion and Training Record Documentation.
- B2. Training Provided as Informational Material for General Awareness/Consumption and That Does Not Require Certification of Completion or Training Record Documentation.
- B3. Training to be delivered to Specific DEQ Staff Whose Role and Responsibility May Directly Impact Certain Significant Environmental Impact Identified by the EMS Management Workgroup.

C. Operational Controls

- C1. Ensure Operational Activities to Reduce Water Consumption and Enhance Conservation Practices.
- C2. Ensure Energy Conservation (Electrical & Thermal)

D. Monitoring & Measurements

- D1. Establish Baseline and Periodic Water Use Information by DEQ Facilities.
- D2. Establish Baseline and Periodic Electric and Thermal Energy Consumption by DEQ Facilities

Document Control Number: EMS 0100.03		Title: DEQ EMS 2003 Implementation Plan	
Origin Date: June 1, 2001	Revision Date & Number : 09/30/03, 04	Effective Date: Aug. 29, 2001	Printed Page: 2 of 15

CHAPTER ONE

1. Individual Implementation Work Items

- 1.1 Environmental Policy** – The Environmental Policy is in place.
Responsible Party: Harry Gregori. .
Date for Completion: 10/01/02 **Status:** Updated 10/01/02
Comment: The DEQ Environmental Policy and the EMS Manual are posted on the DEQ Internet and Intranet for dissemination.
- 1.2 FY 2003 Budget** – Budget reductions have required the redeployment of previously assigned resources and the development of a revised EMS plan.
Responsible Party: Harry Gregori
Date for Completion: 7/01/03 **Status:** Underway
Comment: In November 2002, a new budget changed available resources and staff to implement the EMS.
- 1.3 EMS Management Revised Structure** – The roles, responsibilities, and authorities of the EMS Management Team are undergoing change due to the budget reductions. A new Management team has been established, comprised of Rick Weeks, Harry Gregori, Valerie Thomson, Mike Murphy and One regional Office director to be named. This changes has been documented and communicated throughout DEQ.
Responsible Party: The Director after receiving the recommendations of the EMT at the EMT meeting scheduled for 3/06/03.
Date for Completion: 4/01/03 **Status:** Underway
Comment: Document is in its final stage and will be posted on the DEQ Internet and/or DEQNet by November 1, 2003.
- 1.4 EMS Management Workgroup Charter** – This document exists.
Responsible Party: Sharon Baxter.
Date for Completion: 10/31/01 **Status:** Completed
Comment: The Charter is posted on the DEQ Internet/DEQNet.
- 1.5 EMS Implementation Plan Assessment** – The **EMS Management Workgroup** has determined that the next EMS assessment will take place in November.
Responsible Party: Sharon Baxter
Date for Completion: 11/30/03 **Status:** Pending
Comment:
- 1.6 EMS and Regulatory Compliance Audits** – The EMS Management Workgroup has recommended that the EMS Audit requirement of ISO 14001 be handled by an internal team established by the EMT Management Team Lead and that, once every five years, an external audit team be engaged to conduct an EMS Audit. This team shall also conduct regulatory compliance audits.

Document Control Number: EMS 0100.03		Title: DEQ EMS 2003 Implementation Plan	
Origin Date: June 1, 2001	Revision Date & Number : 09/30/03, 04	Effective Date: Aug. 29, 2001	Printed Page: 3 of 15

Responsible Party: Sharon Baxter as project manager of an audit team named by the Deputy Director

Methods: On site audit of the EMS throughout DEQ

Means: 120 work hours

Date for Completion: 1/30/03

Status: Non-conformance

Comment: Due to the staff reorganization pursuant to the budget reductions this element was not completed in the targeted time. The audit will be completed by October 31, 2003.

Corrective Action: DEQ is reorganizing the EMS structure in response to the budget and staffing reduction/changes and will schedule an on-site auditing in October 2003.

- 1.7 Records and Document Control Procedures** – ISO 14001 requires that the organization establish and maintain procedures for the identification, maintenance, and disposition of environmental records and controlling the distribution of new EMS documents and removal of obsolete EMS documents.

To be done – Establish procedures for document control and records retention.

Responsible Party: Dona Huang.

Methods: **General Guidance Procedure** is included in the EMS Manual, Section 7.2.

Date for Completion: 8/31/01; Detail by program 11/30/01

Status: Completion 11/30/01.

Comment:

- 1.8 Emergency Preparedness and Response (EPR)** – ISO 14001 requires the organization to establish procedures for identifying the potential for emergency and accident situations, preparing response plans, and periodically testing response procedures.

Responsible Party(ies): Mike Murphy / Jeff Steers

Methods: An Emergency Preparedness Subcommittee has identified the requirements for an emergency preparedness plan. Recently federal and state requirements for homeland defense have been developed for incorporation. Currently the Department is reforming its EPR team to develop the EPR in conjunction with its safety plan and homeland defense plans.

Means: Subcommittee action; define plan limits prior to first meeting.

Date for Completion s: The first activity of this renewed effort was Friday, February 14, 2003.

Status: In-Progress

Comment:

- 1.9 Documentation** – ISO 14001 requires organizations to establish information that describes the operation of the EMS. At the DEQ, this takes the form of an EMS Manual that has been completed

Responsible Party: Harry Gregori

Date for Completions: 5/23/01

Status: Completed 5/23/01

Document Control Number: EMS 0100.03		Title: DEQ EMS 2003 Implementation Plan	
Origin Date: June 1, 2001	Revision Date & Number : 09/30/03, 04	Effective Date: Aug. 29, 2001	Printed Page: 4 of 15

Comment: The EMS Manual was approved by the EMT on 5/23/01 and has been posted on the DEQ Internet/DEQNet.

- 1.10 Legal and Other Requirements** – ISO 14001 requires organizations to establish and maintain a procedure for having access to environmental legal and other requirements. At the DEQ, the **EMS Management Workgroup** has recommended that an archive of legal and other requirements be established and has written this into a procedure in the EMS Manual.

To be done: Maintain Legal Archive

Responsible Party(ies): Director of Administration, Regional Directors, **Policy Office**, Kathy Frahm, Regulatory Affairs Manager, Cindy Berndt and EMS Manager. Harry Gregori is coordinating this within the various parts of the DEQ.

Methods: Compile and maintain an archive of environmental laws, regulations, ordinances, and other requirements. A key element of this task is to review local ordinances to determine if there are any that may affect the DEQ operations.

Date for Completion: 10/30/03

Status: Pending

Comment: Procedures for identifying and updating Legal and Other Requirements are found in the EMS Manual Section 3 and detail procedures can be found in EMS Level II Documentation.

- 1.11 Internal Communications** – ISO 14001 requires the establishment and maintenance of procedures for communicating throughout the organization about the EMS. The **EMS Management Workgroup** recommended that this communication be a responsibility of the EMS Manager.

Responsible Party(ies): EMS Lead- Rick Weeks/Harry Gregori/Bill Hayden

Methods: DEQNET, direct e-mail, general awareness training, office staff meetings, functional unit staff meetings, details by programs to be determined.

Date for Completion : 6/15/01

Status:Completed

6/15/01/continuing

Comment: This is addressed in the EMS Manual Section 6.1

- 1.12 External Communications** – ISO 14001 requires organizations to determine what information about the EMS it will furnish to external interested parties. At DEQ, it has been determined that for external communication, the information will be provided on the DEQ web site. This includes the EMS Manual, the EMS Policy Statement, the EMA Implementation Plan and the Pollution Prevention Plan.

Responsible Party(ies): Bill Hayden and Harry Gregori

Date for Completion: 11/30/01

Status: Complete/Continuing

Comment: Procedures for requesting posting on the DEQ Internet has been established and will be maintained by the Office of Public Affairs. Criteria for DEQ EMS information posting on the web are incorporated into agency procedures for information posting. Additional information and EMS revisions will be posted by November 1, 2003.

Document Control Number: EMS 0100.03		Title: DEQ EMS 2003 Implementation Plan	
Origin Date: June 1, 2001	Revision Date & Number : 09/30/03, 04	Effective Date: Aug. 29, 2001	Printed Page: 5 of 15

- 1.13 Training Records** – ISO 14001 requires the establishment of a procedure for maintaining EMS training records.
Responsible Party(ies): Training Services Manager Susan Mongold and Pat Vanderland.
Methods: Susan Mongold and Pat Vanderland have established and implemented a training records procedure.
Date for Completion: 11/01/02 **Status:** Completed 11/01/02
Comment: A general procedure is documented in the EMS Manual, Section 5.3.
- 1.14 Oversight** – In order to ensure complete implementation and ongoing maintenance of the EMS, it is recommended that one individual be designated as responsible for providing management oversight of the EMS.
Responsible Party(ies): EMS Lead - Rick Weeks/Harry Gregori
Methods: Management Review
Means: 8 work hours/month
Date for Completion: 9/30/03 **Status:** Complete
Comment: As a result of oversight, necessary changes in the EMS program were initiated immediately following the agency restructuring in November 2002
- 1.15 Agency-wide EMS Overview Training** - ISO 14001 requires that staff becomes familiar with the concept of environmental management systems and contents of the DEQ EMS
Responsible Party(ies): Sharon Baxter, DEQ Pollution Prevention (P2) Program Office Director.
Methods: In 01/02 DEQ provided training session in each regional and division office.
Date for Completion: Continuous **Status:** Continuous
Comment: An EMS overview is included in the New Employee Orientation Training sessions that are offered periodically. Overview material is posted on DEQNet2. A new information initiative will be implemented within 30 days of implementing the new EMS organizational structure.

2. Activities to be completed to apply for the VA DEQ E³ Program Requirements.

- 2.1 Pollution Prevention Plan** – The Virginia DEQ's Environmental Excellence Program at the Exemplary Environmental Enterprise (E3) level, requires the establishment of a pollution prevention plan that has measurable objectives and targets and reports its achievements.
Responsible Party(ies): Sharon Baxter
Methods: Reviewing solid waste, energy (computers, lighting), HVAC, vehicle use, printing, fax paper, and when to shut down computers.
Means: 40 work hours.
Date for Completion: 11/30/03 **Status:** Completed
Comment:

Document Control Number: EMS 0100.03		Title: DEQ EMS 2003 Implementation Plan	
Origin Date: June 1, 2001	Revision Date & Number : 09/30/03, 04	Effective Date: Aug. 29, 2001	Printed Page: 6 of 15

2.2 E3 Application and Annual Report – In order to achieve E3 status, DEQ must prepare an application and then report its accomplishments under the program.

Responsible Party(ies): The Director, Robert G. Burnley

Methods: Application

Means: 1 work hour

Completions Date: Within 90 days of EMS Assessment scheduled for October

Status: Pending

Comment: A team of outside reviewers was established and a review conducted of records and structure. The E3 evaluation team will conduct an communications evaluation to determine the extent to which the EMS is understood by staff. This evaluation will take place within 90 days of the EMS Assessment.

Document Control Number: EMS 0100.03		Title: DEQ EMS 2003 Implementation Plan	
Origin Date: June 1, 2001	Revision Date & Number : 09/30/03, 04	Effective Date: Aug. 29, 2001	Printed Page: 7 of 15

CHAPTER TWO

A. OBJECTIVES AND TARGETS

The ISO 14001 defines setting documented Objectives and Targets as an important element to be implemented in order to improve environmental performance. For 2003, the DEQ EMS Management Team with input from the **EMS Management Workgroup** has identified water use and electric energy use as categories of potentially significant environmental impact. The following are lists of integrated environmental objectives and targets to be implemented and achieved in order to reduce the level of impact among the seven categories identified. Some of the implementation items may address more than one significant environmental aspect. They were developed to maximize outcome with the most efficient use of resources.

A1. Water Conservation: Reduce water consumption by 15% at each DEQ facility.

A1.1 **Implement the water conservation plan developed by DEQ.**

Responsible party: Hary Gregori

Date for completion: 11/01/02

Status: Underway

Methods: Each DEQ facility will implement procedures outlined in conservation plan. Water use billing reports will be assessed to determine progress.

Comments: Each facility has designated responsible parties to assure that the activities defined for water conservation are implemented.

A2. Electrical and Thermal Energy Use: Improve Energy Conservation and Efficiency Within DEQ Facilities (Both Electrical and Thermal Energy) Where Possible.

A2.1 **Evaluate any peak-hour provisions in power contracts.**

Responsible Party(ies): Jay Gutshall

Date for Completion: 7/1/01

Status: Completed

Methods: Review power contracts, report to EMS Management

Comment: Jay has reviewed the existing lease contract language and did not find the desired language. Per Jay, we have a full service lease contract with the building owner and it does not allow for peak-hour provisions. If we desire to do so, we would need to get out of our full service lease contract and negotiate directly with the utility company for some sort of peak-hour provisions. Contract language between the property owner and the utility company was neither available nor accessible for review to discern if there is a peak-hour provision in the contract language.

A2.2 **Ensure that DEQ facilities go into sleep mode when unoccupied**

Responsible Party(ies): Jay Gutshall

Date for Completion: 7/1/02

Status: On-Going

Method: Review and update current practices to ensure electric power use efficiency

Comment: Jay has reviewed the current contracts and practices and found that they do have language that requires minimal power usage after hours. However,

Document Control Number: EMS 0100.03		Title: DEQ EMS 2003 Implementation Plan	
Origin Date: June 1, 2001	Revision Date & Number : 09/30/03, 04	Effective Date: Aug. 29, 2001	Printed Page: 8 of 15

he is looking into ways we can influence a change in the contract language, if needed. As of now, we are not able to revise the contract to further ensure minimal power use at night. Revision of contract, if any, will have to come at the time of contract renewal.

A2.3 Review guidelines for cleaning crew shutdown of power and revise as necessary to ensure minimal power use at night.

Responsible Party(ies): Jay Gutshall

Date for Completion: 7/1/01

Status: Completed

Method: Review and update current practices to ensure electric power use efficiency

Comment: Jay has reviewed the current contracts and practices and found that they do have languages that require cleaning crew to shut down power after night work. However, he is looking into ways we can influence a change in the contract language, if needed. As of now, we are not able to revise the contract to further ensure minimal power use at night. Revision of contract, if any, will have to come at the time of contract renewal.

A2.4 Establish agency guideline/plan for energy conservation and develop procedures for periodic monitoring of and controlling deviation from energy conservation.

Responsible Party(ies): Harry Gregori,

Date of Completion: 2/20/02

Status: Complete

Method: Staff development

Comment: Plan developed, measurement to resume pending restructuring of the EMS

A3. Energy Conservation and Procurement: Incorporate Procurement Language Supportive of DEQ EMS in Future Request for Proposal (RFP) Documents.

A3.1 Review for feasibility to make electric power use efficiency an element of RFPs for property leases.

Responsible Party(ies): Jay Gutshall

Date for Completion: 11/1/01

Status: Review completed 8/17/01,

to be implemented when required.

Methods: Review and update current practices to ensure electric power use efficiency

Comment: The DGS's current RFP for leased space contains energy efficient lighting/electrical requirements. Any additional modification to RFP can be done to ensure further energy efficiency objective when a need for such a RFP arises. DGS would have to approve such language modification in the RFP. In the RFP, an Environmental Impact Study is also required.

A3.2 Examine feasibility of establishing a uniform eco-efficient policy on HVAC performance for DEQ facilities and make it a contractual requirement of leases, as appropriate.

Document Control Number: EMS 0100.03		Title: DEQ EMS 2003 Implementation Plan	
Origin Date: June 1, 2001	Revision Date & Number : 09/30/03, 04	Effective Date: Aug. 29, 2001	Printed Page: 9 of 15

Responsible Party(ies) : Jay Gutshall, Dona Huang, Harry Gregori, Keith Boisvert

Date for Completion: 04/30/04 **Status :** Underway

Methods: TBD

Comment: DEQ should prepare a policy based on the performance of the contract for the newly installed HVAC at DEQ HQ that included energy efficient equipment 2002/03.

A3.4 Make EMSs a consideration on RFPs for services.

Responsible Party(ies): Valerie Thomson

Date for Completion: On-going **Status :** Continuous

Methods: Introduce an EMS measurement criterion into RFPs

Comment: This consideration is a part of overall discussion and cooperative effort with DGS on EPP purchases.

Document Control Number: EMS 0100.03		Title: DEQ EMS 2003 Implementation Plan	
Origin Date: June 1, 2001	Revision Date & Number : 09/30/03, 04	Effective Date: Aug. 29, 2001	Printed Page: 10 of 15

B. TRAINING

ISO 14001 requires that employees whose job responsibilities could create a significant impact on the environment be trained and competent to carry out their responsibilities without unnecessarily triggering a significant environmental impact. The **EMS Management Workgroup** has identified water use, electric energy use as categories of significant environmental impact. The training activities are integrated and categorized by their resource and record keeping requirements and how they are delivered to allow for maximum delivery efficiency and effectiveness.

B1. Mandatory EMS Related Training to be Implemented Agency-Wide or to be Offered to a Large Segment of DEQ Staff and Would Require Certification of Completion and Training Record Documentation. This would have multiple deadlines for phasing in certain aspects of training. The training may be delivered through a classroom or an on-line setting but should be ultimately implemented and managed by the DEQ Training Services Office with the assistance of assigned individuals or offices. Subsequent to the first training cycle, the mandatory training will be delivered on an annual basis and to be offered to new employees at their orientation.

B1.1 Provide training to staff on water conservation techniques.

Responsible parties: This task is a component of the DEQ Training Services activities. Susan Mongold

Date for Completion: On-going

Status: In-progress

B1.2 Provide electric power use efficiency training for DEQ employees, landlords, and their staffs.

Responsible Party(ies): This task is referred to the DEQ Training Services for inclusion in the EMS training curriculum with a recommendation that Keith Boisvert be considered as the trainer for this activity.

Date for Completion: On-going

Status - In-Progress

Methods: Intranet/classroom

Comment: Keith has posted two energy efficiency training materials on the DEQNet2 as of 02/2002. He will continue to coordinate with the Training Services to develop the training material and to determine appropriate medium for dissemination of the information. He will update the information at least once every 12 months after the initial implementation or as warranted by changing information and technologies. Information will be updated by November 30, 2003

B1.3 Provide training to all DEQ personnel on thermal energy conservation.

Responsible Party(ies): This task is referred to the DEQ Training Services for inclusion in the EMS training curriculum with a recommendation that Keith Boisvert be considered as the trainer for this activity

Date for Completion: On-going

Status - In-Progress

Method: Design on-line training materials.

Comment: Keith has posted one thermal energy efficiency training material on the DEQNet2 as of 01/01/02. He will continue to coordinate with the Training

Document Control Number: EMS 0100.03		Title: DEQ EMS 2003 Implementation Plan	
Origin Date: June 1, 2001	Revision Date & Number : 09/30/03, 04	Effective Date: Aug. 29, 2001	Printed Page: 11 of 15

Services to develop the training material and to determine appropriate medium for dissemination of the information. He will update the information at least once every 12 months, after the initial implementation or as warranted by changing information and technologies. Information will be updated by November 30, 2003.

B1.4 Identify Training Needs to Renew EMS Awareness

Responsible Party(ies): EMS Management Workgroup and DEQ Training Services for inclusion in the EMS training. Susan Mongold

Date for Completion: 30 days following EMS Restructure Status - In-Progress

Method: Identify Training Needs and Design on-line training materials.

Comments: A renewed EMS awareness training program will be implemented to inform staff of the details of the changes in the EMS structure. Training will be completed within 90 days of availability of the training materials.

- B2. Training to be delivered to Specific DEQ Staff Whose Role and Responsibility May Directly Impact Certain Significant Environmental Aspects Identified by the EMS Management Workgroup.** This training would require documented certification of completion in the staff's training record. The delivery of the training may or may not be conducted by the Training Services Office but it must document such training in the staff training record.

B2.1 Boat Washing

Document Control Number: EMS 0100.03		Title: DEQ EMS 2003 Implementation Plan	
Origin Date: June 1, 2001	Revision Date & Number : 09/30/03, 04	Effective Date: Aug. 29, 2001	Printed Page: 12 of 15

C. OPERATIONAL CONTROL

ISO 14001 requires organizations to put in place operational control over activities that are associated with the identified significant environmental aspects in line with its policy, objectives, and targets. The EMS Management Workgroup has identified water use and electric energy use as categories of potentially significant environmental aspects. Following are the operational controls that are or need to be put in place to prevent and to reduce occurrence of negative impacts related to these significant aspects and to ensure that objectives and targets are achieved.

C1. Water Conservation

C1.1 Continue with water conservation training as listed in Training Sections B1.1

Methods: The EMS Management Team will provide oversight, use of EMS outreach and feedback, and through Implementation Plan Activity Coordinators.

C2. Ensure Energy Conservation

C2.1 Continue with energy conservation training as listed in Training Sections B2.1. and B2.3.

Methods: The EMS Management Team will provide oversight, and through EMS Implementation Plan Activity Coordinators.

C2.2 To ensure future RFPs and facility leases contain language or content addressing or improving upon existing:

- a) Eco-efficiency in HVAC performances. [Objectives & Targets Section A5.3]
- b) Building operation to go into sleep mode at night [Objectives & Targets Section A3.2].
- c) Guideline for cleaning crew shutdown of power [Objectives & Targets Section A3.3].
- d) Electric power use efficiency [Objectives & Targets Section A5.2].

Methods: Include in the RFPs evaluation and selection criteria in support of aforementioned items.

Comment:

Document Control Number: EMS 0100.03		Title: DEQ EMS 2003 Implementation Plan	
Origin Date: June 1, 2001	Revision Date & Number : 09/30/03, 04	Effective Date: Aug. 29, 2001	Printed Page: 13 of 15

D. MONITORING AND MEASUREMENT

ISO 14001 requires that organizations establish and maintain documented procedures to monitor and measure the key characteristics of activities that are associated with the identified significant environmental aspects in line with its policy and objectives. The EMS Management Workgroup has identified water use, electric energy use as categories of potentially significant environmental aspects. Following are the monitoring and measuring activities related to these significant aspects. Within this section, there are monitoring and measurement activities that serve to establish baseline data for future evaluation. The other monitoring and measurement activities are means to identify deviation from objectives and targets and to assist operational control in meeting its purpose. In most cases, unless specified otherwise, the baseline data reflects fiscal year activities (FY 2001: 7/01/00 to 6/30/01). Procedures for collecting and analyzing the data are being prepared and will be documented in the EMS Level II Documentation Manual.

D1. Establish baseline and periodic Waste Use by DEQ Facilities.

D1.1 Measure Water Use by each DEQ facility through water billing information.

Responsibly Party: Designated facility managers

Date for completion: 10/30/03

Status: Underway

Method: Data from water billing will be collected and assessed monthly.

Comment: Harry Gregori /Jay Gutshall and designated facility managers.

D2. Establish Baseline and Periodic Electric and Thermal Energy Consumption by DEQ Facilities.

D2.1 Measure Electrical (Kilowatt) and Thermal Energy (Fuel) Consumption by DEQ Facilities.

Responsible Party(ies): Jay Gutshall

Date for Completion: 06/30/03 **Status** - Baseline Completed for electrical consumption. Data for thermal energy consumption will be collected and reported by November 1,2003.

Method: Refer to power company invoices and facility management billing records for fuel usage and report to EMS Management

Comment: Jay will collect records from building management on an established periodic basis with information breakdowns by month, in order to assist operational control activities. Jay maintains the procedures and data associated with baseline data collection activity. A electrical energy consumption baseline report has been filed with the EMS Work File System.

D2.2 To monitor periodic electrical and thermal energy consumption level in accordance with the established monitoring plan.

Responsible Party(ies): Jay Gutshall

Date for Completion: On-going quarterly monitoring **Status:** Pending reassignment of responsibilities.

Method: Review of Monthly Records

Document Control Number: EMS 0100.03		Title: DEQ EMS 2003 Implementation Plan	
Origin Date: June 1, 2001	Revision Date & Number : 09/30/03, 04	Effective Date: Aug. 29, 2001	Printed Page: 14 of 15

Comment:

Document Control Number: EMS 0100.03		Title: DEQ EMS 2003 Implementation Plan	
Origin Date: June 1, 2001	Revision Date & Number : 09/30/03, 04	Effective Date: Aug. 29, 2001	Printed Page: 15 of 15